

DPHSWD in South Africa



Accomplishments in South Africa

In 2011-2012, SA-FELTP residents conducted 22 outbreak investigations. Highlights include:

- Identification of more than 700 cases of *Salmonella typhi* in Harare, Zimbabwe related to contamination of bore-hole wells. Residents identified problems with water use practices and provided education to prevent further contamination and spread of disease.
- Investigation of 8 patients with a resistant bacteria. Residents determined that the likely cause was health care staff in a hospital ward. Recommendations included increased training and monitoring of staff in infection-control practices and implementing collection of bacterial cultures from patients admitted to the ward.
- Preventing further spread of a meningococcal outbreak by locating and providing preventive treatment to contacts of 23 cases of *Neisseria meningitidis* W135.

Shared lessons learned by presenting 15 abstracts at the 4th African Field Epidemiology Network scientific conference where one resident received the award for best oral presentation.

Overview and Goals

In 2006, the Division of Public Health Systems and Workforce Development, Centers for Disease Control and Prevention (CDC), assisted the government of South Africa initiate the South Africa Field Epidemiology and Laboratory Training Program (SA-FELTP) within the National Institute for Communicable Diseases. The SA-FELTP is a 2-year, full-time residency training and service program, which provides an accredited Masters in Public Health (MPH) degree from the University of Pretoria. CDC also collaborates with the South Africa National Department of Health (NDoH) on the SA-FELTP. The program aims to:

- Develop a government-owned and sustainable platform for building field epidemiology capacity for health professionals at all levels of the South African health services system.
- Strengthen the capacity of public health professionals to detect and respond to acute public health events.
- Train health professionals to utilize an evidence-based approach to drive program and policy decision-making.
- Engage in and encourage epidemiologic research aligned with National priorities and health conditions
- Support national, regional, and international collaboration to strengthen field epidemiology capacity.
- Maintain a high standard of teaching and mentoring.

Program Description

Building Workforce Capacity

By increasing the number of skilled epidemiologists, South Africa is strengthening its public health workforce. The SA-FELTP, through coursework and on-the-job mentorship, trains future public health leaders in applied epidemiology and public health laboratory practice. The program provides public health service to national and sub-national health authorities in country.

Emphasizing problem-solving, residents learn how to address public health problems through a systematic approach. SA-FELTP residents

- Investigate and confirm suspected outbreaks or other public health events using laboratory confirmation when needed.
- Analyze and interpret data collected during outbreak investigations and routine monitoring of priority diseases.
- Use analyzed data to implement appropriate responses.
- Provide feedback across various levels of the health system.
- Evaluate the performance of surveillance and response systems.

At least two applied field epidemiology short courses are presented annually to South African health professionals outside of the regular FELTP curriculum. These courses help build capacity in disease control, disease surveillance, outbreak investigations, and data management.

Strengthening Public Health Systems

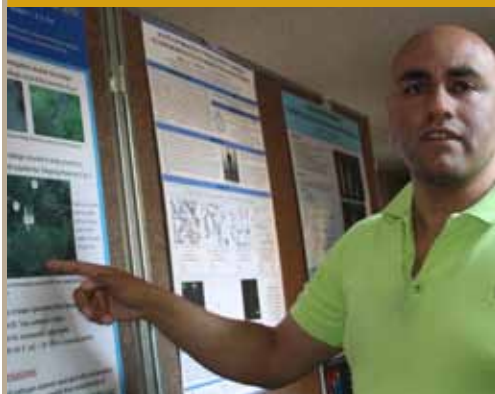
Since the program's inception in 2006, SA-FELTP residents have been engaged in a number of activities that aim to strengthen South Africa's public health system. For example, residents have conducted 35 surveillance evaluations spanning the range of communicable diseases (e.g., polio, rabies, tuberculosis) and non-communicable diseases



Seven SA-FELTP residents completed their training and were awarded MPH degrees at the September 2012 graduation ceremony held at the University of Pretoria in South Africa.



Genevieve Ntshoe, SA-FELTP, graduate, examining specimen in lab, 2009.



Riyadh Manesen, SA-FELTP, at the University of Pretoria faculty conference presenting his poster on investigation of multiple pathogens in the Tshepon Reservoir where 337 people became sick. Health promotion and surveillance activities were intensified and water treatment was immediately changed from a manual to an automatic system.

(e.g., pregnancy terminations and cancer). Findings and recommendations have been shared with stakeholders and are being used to improve various levels of the health system. In addition, residents have been assigned to work on South Africa's priority health conditions including HIV, TB, Malaria, respiratory, and intestinal diseases. Based on the burden of disease and need for facilities improvement, discussions are ongoing to assign residents to priority districts where they will work on non-communicable diseases and maternal and child health. These approaches are critical to developing effective public health surveillance and response systems.

To date, 35 SA-FELTP graduates are filling key public health positions in South Africa at National or Provincial levels. The skills they have learned during their residency have prepared them to provide the leadership necessary to improve disease detection, prevention and health promotion, and reduce the burden of morbidity and early mortality in South Africa.

Strengthening Public Health Infrastructure and Institutions

SA-FELTP strengthens South Africa's public health system by monitoring health status, identifying and solving community health problems, investigating outbreaks, and evaluating the effectiveness and quality of population-based health services. To strengthen institutional capacity, preliminary discussions have begun with NDOH to consolidate public health institutions and establish a National Public Health Institute.

Working with various public health institutions, residents and graduates systematically increase the performance capacity of these institutions and ensure that public health goals are met. Residents also receive in-class core training at the University of Pretoria and the National Institute of Communicable Disease. During the remainder of their 2-year training, residents are mentored and assigned to national, provincial or district level sites within the National Department of Health and the National Health Laboratory System.

Future Plans

- Expand the concentration of FELTP activities to include maternal and child health and non-communicable disease (NCD) surveillance, prevention, and control to address priority disease conditions.
- Increase the quantity and quality of mentors and supervisors by utilizing the increasing pool of alumni, CDC staff and training, and monitoring new and current pool of supervisors.
- Recruit more medical doctors to the program.
- Increase program integration, ownership and advocacy within and by the national and provincial departments of health.
- Expand FELTP enrollment to professionals outside of South Africa to help serve the region.

Key Partners

- South Africa National and Provincial Departments of Health
- National Institute of Communicable Diseases of the National Health Laboratory Service
- University of Pretoria
- CDC's Division of Global HIV/AIDS and Division of Global Disease Detection and Emergency Response

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